

SCHOOL LIFE

OFFICIAL JOURNAL OF THE ★ ★ ★ ★ ★ ★ ★ ★

OFFICE OF EDUCATION

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December 1955

Taking the Current

As I reflect upon the thrilling experience of the recent White House Conference on Education, I am reminded of the familiar lines from *Julius Caesar*: "There is a tide in the affairs of men, which, taken at the flood, leads on to fortune."

They dramatize to me the magnificent opportunity that presents itself to us, to take the floodtide of popular sentiment so apparent in the White House Conference and in the thousands of local, State, and regional conferences that preceded it, and to ride it to an unprecedented level of educational fortune.

But I am haunted by Shakespeare's observation on those who fail to seize such an opportunity: "... all the voyage of their life is bound in shallows and in miseries."

I say that this haunts me because it seems to me to be an alternative that faces us in the days that follow the White House Conference.

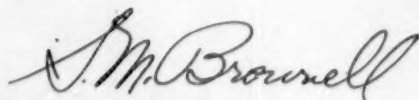
No crisis in Roman history can have exceeded, either in importance to the people or in dramatic significance, the educational alternatives that face the American people in this moment of decision; no Roman war ever approached the proportions of the struggle which we must now undertake in behalf of our educational ideals.

I only hope that Americans realize the magnitude of the choice that lies before them.

I can give you my earnest assurance that the United States Office of Education is making every effort to sustain and to strengthen the ground swell of awakened citizen interest which is now in such evidence; but I must at the same time caution you that I do not believe that any agency of government—at the local, State, or Federal level—can of itself carry the Nation on to educational fortune.

Unless we can sustain this truly popular sentiment and convert it into constructive citizen activity at every level, I fear we face a long period of educational "shallows" and "miseries."

I return to *Julius Caesar* to express my conviction that the time for concerted and constructive action is now: "We must take the current when it serves, or lose our ventures."



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EVENTS AND DEVELOPMENTS

of national significance

Largest College Enrollment

On the basis of returns thus far, the Office of Education estimates that a total of 2,716,000 students have enrolled in colleges and universities this fall, more than ever before in our history.

The estimate is based on early returns from about 1,200 institutions of higher learning, about two-thirds of the Nation's total.

This year's new high is the culmination of 4 consecutive years of increases. It is 216,000, or 8.6 percent, more than the enrollment last fall, and 600,000, or 28.3 percent, more than in 1951.

Assuming that the institutions reporting thus far are representative of the country as a whole, we venture some details:

- Of the total, 1,788,000 (65.8 percent) are men and 928,000 are women. Compared to last fall, this means an increase of 11.6 percent for the men and 3.3 percent for the women.

- First-time students make up 694,000 of the total, an increase of 8 percent over last fall. Of these, nearly 62.7 percent are men.

A more complete report on this matter will be made in another month or two in the Office's periodical *Higher Education*; a final report will be issued in the form of a separate circular.

Future Farmers

Star Farmer Joe Moore from Tennessee, whose young face looked out on the world from the front cover of

Time this fall (October 24), was not the only member of the Future Farmers of America to be honored by his organization when it met in annual convention at Kansas City, Mo., in mid-October.

Another name besides Joe Moore's to spring into national prominence at the convention was that of the newly elected president of FFA, Dan Dunham, 19, who farms in one-third partnership with his parents in southeastern Oregon.

It will be a busy year for Dan Dunham. He will probably spend more than two-thirds of his term working in the interest of the national FFA organization, which is sponsored by the Agriculture Education Branch of the Office of Education in cooperation with the various State Boards for Vocational Education and local high school departments of vocational agriculture.

He has already made two trips to Washington in his new capacity: One in October to receive a citation to FFA by the Military District of Washington; another in November for the White House Conference on Education. And he will make at least two more, in January and July, for meetings of the FFA Board of Student Officers and Board of Directors.

In February, with the five other national FFA officers, he will make a 3-week good-will tour to visit heads of other organizations, businesses, and industrial firms. Later, in the spring and summer, he will attend and address several of the State FFA conventions.

Three States Sign Defense Education Contracts

Civil defense education projects have been set up in California, Connecticut, and Michigan, in accord with a contract entered into by each State's superintendent of public instruction and the Office of Education.

By the terms of the contracts (effective September 26 in Michigan, November 16 in Connecticut, December 9 in California), each State department of education is continuing a pilot center established last year under similar contract with the Office.

Purpose of these centers is to develop curriculum materials for teaching, at all levels, the skills and fundamentals of behavior that are needed in times of emergency and disaster.

The Office of Education, for its part, will supply the pilot centers with basic technical materials. And the States, through actual classroom use, will test and evaluate the teaching materials developed under last year's contracts.

"This year," says John R. Ludington, who now serves the Office of Education both as chief of the Secondary Schools Section and as director of the civil defense education project, "the teaching materials developed in the pilot centers of these three States will be brought together in a publication appropriate for use in schools throughout the United States."

In this cooperative effort the Office is acting under a delegation of authority by the Federal Civil Defense Administration to the Department of Health, Education, and Welfare.

\$500 Million for College Housing

The college housing loan fund, which the 84th Congress in its first session increased from \$300 million to \$500 million, has been released to the Housing and Home Finance Agency without any budgetary limitation.

This freedom from budgetary restriction was announced before the annual meeting of the Association of Land-Grant Colleges and Universities in East Lansing, Mich., on November 14, by John C. Hazeltine, Commissioner of the Community Facilities Administration, Housing and Home Finance Agency.

Hitherto, in each year since the Housing Act of 1950 was passed (Public Law 475, 81st Congress), a budgetary limit—usually \$40 million to \$50 million—has been set on how much of the authorized fund could be loaned.

But this year, as a result of the new amendments to the Act, by which Congress increased the college-housing program in a number of ways, colleges have sent in such a flood of applications that the usual limits have been removed.

Role of the Office of Education in this program is to provide educational advisory services.

Guaranteed Expenditure Levels

Any State that uses a State salary schedule as a base for calculating the amount of funds the school districts should receive for maintaining their foundation programs is likely to produce inequalities in its guaranteed-support levels.

This was one of the points made by Clayton D. Hutchins, Office of Education specialist in school finance, as he addressed the Council of Chief State School Officers in Washington, D. C., on December 2. Speaking on "A Program for Adequate Financing of Public Schools," Dr. Hutchins examined various reasons for the inequalities that arise in many States in the distribution of funds for guaranteeing a basic foundation program in all schools.

In place of the State salary schedule as a base for computing the amounts due the various districts, Dr. Hutchins recommended an alternative:

"To assure equitable guaranteed levels of support which are fair to the pupils in all parts of the State, it appears that foundation programs should be based on *numbers of pupils or classrooms* and not on a State salary schedule. The level type of foundation program is more defensible and is considered to be an essential feature of the more adequate program for financing the schools."

Surplus Property

Since Public Law 61 was signed into effect on June 3, allocations of Federal surplus property for education and health purposes have reached a new high—\$18 million a month.

The new law permits Federal "stock fund" property to be available for donation to health and educational organizations before it is offered for sale. The change is significant because stock funds cover items in common use.

Thus colleges and universities are now obtaining free of cost (except for handling charges) such valuable personal property as laboratory equipment, machine tools, office machines, surveying instruments, and even boats for marine research.

Technical Education in Indonesia

Through the eyes of foreign educators, Indonesia has been taking a long look at its vocational and industrial schools this fall.

It all began early last summer, when the Indonesian Planning Commission, an advisory body responsible for making recommendations to the various Indonesian ministries, asked the International Cooperation Administration in the United States to send them a team of specialists in technical education, for the purpose of studying the country's vocational and industrial schools.

Four men were sent: William Sterton, vice president of Wayne University; William Burr, dean emeritus of the School of Agriculture at the University of Nebraska; Douglas Sherman, professor of industrial arts at the University of Alabama; and Floyd L. Barloga, staffing specialist in the Education Missions Branch, Office of Education.

What the Indonesians most wanted advice on, said Mr. Barloga this fall upon his return from a 3-month tour of duty in the Far East (which involved also a survey of the Technical Institute at Bangkok), was how to strengthen their technical education program in both colleges and secondary schools and how to train "middle-level" technicians.

"Among their chief needs," reported Mr. Barloga, "are more adequate teacher training at all levels, a redistribution of existing equipment, and full utilization of existing facilities." Already, he says, the Indonesians are working on a program that will incorporate many of the recommendations made by the visiting team.

Bibliography on Automation

Last month the Office of Education published a selected bibliography on industrial technological advances, with particular emphasis on automation.

The bibliography, which had been prepared by Howard K. Hogan, consultant in employee-employer relations, Trade and Industrial Branch, was first distributed to directors and supervisors of vocational and industrial education. It went also to members of the American Society of Training Directors and to various industrial and labor organizations.

Appropriately, the compilation appears at a time when interest in the implications of technological advances to education has reached a new keenness; and it both reflects and anticipates the discussions that are taking place on the subject at highly responsible levels.



WHITE HOUSE CONFERENCE REPORTS

When the 1,800 participants in the White House Conference on Education prepared their six reports on the six questions they had been asked to answer, they took opportunity in five of them to be explicit about the role of the U. S. Office of Education in the forthcoming educational effort.

At every level, responsibility

Even the report that did not name the Office—the one devoted to the first question, “What should our schools accomplish?”—had something to say about the Federal Government’s share in the task of seeing that every child gets a full opportunity for a free public education:

“The fullest measure of local initiative and control should be maintained, but no level of government (local state, or national) should be relieved of its appropriate responsibility in fulfilling this commitment.”

More of the same

Fullest statement of the role of the Office appeared in the second report, which was devoted to the question of school-district organization.

Pointing out that responsibility for efficient organization of school districts is vested in many persons and groups at all levels, the conference said that “consideration should be given to the strengthening of the position of the Office of Education in keeping with the importance of education to the Nation.”

More specifically, it recommended that the Office “be adequately staffed to perform the functions it is now performing in making reports on the progress of education throughout the Nation, in carrying on essential research activities, and for providing promptly the needed statistical information.”

The Office should also provide leadership, the report said, “of the sort represented by this Conference.”

Research on school construction

In their discussion of the third question—“What are our school building needs?”—the participants said firmly that the Federal Government should have “no control whatsoever” over school building plans and specifications.

Some participants, however, were reported as thinking that the Office of Education should carry out research “in all areas of school building materials and construction and make results available to schools.”

Certification study

An equally specific recommendation for research in the Office came up in the fourth report, on “How can we get enough good teachers—and keep them?”

After going on record against any lowering of standards in teacher preparation and certification as an aid in teacher recruitment, the conferees recommended that the Office make a study of certification standards and “establish a basis for reciprocity among States.”

Administration of grants

Two to one, the participants approved the proposition that the Federal Government increase its financial participation in public education. In their report on the fifth question, “How can we finance our public schools—build and operate them?” they carefully stated a proviso: that Federal funds be administered only through the appropriate State agency.

It was in this connection that the place of the Office of Education was discussed. “There was some opin-

ion,” said the report, “that Federal administration of financial grants for education should be vested in the Office.”

Information to the people

In the final report, on “How can we obtain a continuing public interest in education?” the conference stated as its firm conviction that “when the people have all the facts, they will make the right decisions.”

Many of the activities that the report suggested for the local and State levels as means of giving the people the facts, it extended also to the national scene. As part of this extension it recommended that government agencies, specifically the Office of Education, compile and distribute “pertinent information concerning education.”

Promised cooperation

As the participants gathered for their final general session, on the evening of December 1, they received pledges of cooperation at the national level.

Speaking about the plans of the Office of Education, Commissioner S. L. Brownell said, “You may expect that we will give the highest priority to study of the reports of this Conference and its Committee, especially as they relate to ways in which you believe the Office can be most helpful.”

Secretary Marion B. Folsom, Department of Health, Education, and Welfare, told of a decision to “recommend to Congress a major expansion and improvement in educational research and statistics. This will help all of us to understand just what the problems are, where future problems may be developing, and what needs to be done about them.”

FALL FACTS ABOUT PUBLIC SCHOOLS

State departments of education report data on enrollment, teachers, and housing for elementary and secondary schools

Rising enrollments, overcrowded classrooms, and shortages of qualified teachers—once again these circumstances get new statistical support.

They are the facts that emerge from data reported this fall to the Office of Education by the various State departments of education, in response to a brief questionnaire known as Form RSS-052. For the second consecutive year the Office has sent out this questionnaire to gather information on fall enrollment, teacher supply, and housing in full-time public elementary and secondary day schools.

Crowded classrooms

The reports say that we now have enrolled nearly 2.4 million pupils in excess of the normal capacity of the publicly owned school plants in current use in our country. Serious as this situation is, however, overcrowding seems to be somewhat less—9.8 percent less—than it was a year ago, when the number of pupils in excess of classroom capacity was 2.6 million.

Not all States have felt an easing of the strain. Actually, only 23 States reported less overcrowding; 17 and the District of Columbia reported more. (Two States reported no change and 6 made no report on this particular item.)

Findings of the survey are more fully reported in the Office of Education Circular No. 467 (preliminary), Fall 1954 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools. There, all totals are broken down by States.

What is "excess"?

For the purposes of the survey the Office of Education has defined "normal capacity" as the number of pupils that can be accommodated for a full day, without multiple sessions, in the instruction rooms of the *accessible, permanent, publicly owned* school plants in use. As for the number that can be accommodated in a room, that has been left to each State's standard of what is proper.

Putting it another way: the pupils "in excess of normal capacity" are not only those who crowd an instruction room beyond its standard accommodation but also those who attend in makeshift or improvised quarters, or in buildings not publicly owned, or in nonschool public buildings.

No schoolhouse has been counted outside the pale of "normal capacity" just because it is antiquated, or unsafe, or unsuitable. And pupils housed in such structures have not been included (except inadvertently by one State) among "excess pupils" unless they exceed the capacity of those structures. As a result, the gap reported here between enrollment and capacity gives only a partial measure of the schoolhouse shortage.

In this connection the user of the data should consider the fact that at least two States this year departed from the specified definition of what constitutes a pupil "in excess of capacity."

For instance, the State that this fall reported the biggest increase in overcrowding—over 200,000—counted as excess every pupil who was attending school in a substandard facility. Had the count been confined to those "in excess of normal capacity," the figure would have been only 88,000—hardly

2,000 more than the number reported a year ago.

And the State that reported the biggest decrease in overcrowding, is able to charge a fair amount of it to the fact that in the fall of 1954 it counted *all* children in overcrowded classrooms as "excess" instead of only those in excess of the standard accommodations.

Scheduled construction

Twenty-seven of the States reported that they have scheduled for completion this year more instruction rooms than they scheduled for last year; 19 reported a decrease; 2 reported no change; 1 made no report.

For the country as a whole, the report shows a stepped-up construction program. Scheduled for completion in 1955-56 are 66,300 new classrooms—10.4 percent more than last year's 60,000.

Georgia reported the greatest gain. Its construction schedule has increased from 2,000 rooms in 1954-55 to 7,000 rooms in 1955-56.

It should be remembered that the figures given in both fall surveys have been for rooms "scheduled for completion" during the fiscal year and are not necessarily the same as the number actually completed.

In reporting on the number of instruction rooms they plan to complete this year, the States counted only classrooms, laboratories, and shops—not auditoriums, gymnasiums, lunchrooms, libraries, study halls, and multipurpose rooms although of course many such also will be built.

Overall classroom situation

Estimates are that next year's enrollment will exceed this year's by 1.3

million pupils. At an average of 28 pupils per classroom (30 per elementary classroom and 25 per secondary) these new pupils would fill 46,666 of the 66,300 classrooms scheduled for completion during the current school year. The remaining 20,000 scheduled classrooms would accommodate only about 50,000 of the 2.4 million pupils who now overcrowd their classrooms.

Some school buildings still in use have long since become educationally obsolete; some are also questionable as to safety.

Other factors, too, impose further replacement needs on the school districts: fire, flood, population shifts, and reorganization of districts. The number of classrooms required annually to meet these needs we do not know. It has been estimated to run from 8,000 to 20,000.

Obviously the next few years will not see an end to the schoolhousing shortage, not under a school-construction program of the scope reported this fall by the States, sizable and commendable though it is.

Enrollment

This fall the overall enrollment in the public elementary and secondary schools reached new highs:

	Last fall (In millions)	This fall	Percent increase
Elementary----	21.3	22.1	3.7
Secondary-----	8.2	8.4	3.1
Total-----	29.5	30.6	3.5

(A slight change in reporting may have reduced the comparability of this year's elementary and secondary enrollments with those of last year. In the current survey the terms "elementary" and "secondary" are more clearly defined than they were last year. This year the State departments of education were requested to report data by the type of school organization rather than by grade groups (considering kindergarten through grade 8 as elementary); therefore pupils in junior high schools are now considered as included in secondary enrollments.)

This year's increase in enrollment is rather unevenly distributed among the States. Although thirty-nine

States and the District of Columbia reported more pupils, almost half of the increase occurred in six States—California, Massachusetts, Michigan, New York, Texas, and Wisconsin.

Enrollment figures as here reported may be slightly below real enrollment: some States, at the time when they made their reports, might still have lacked information from some of their school districts. The figures are now being checked further, in preparation for a revised report planned to appear before the end of this month.

Classroom teachers

Judging by the reports, the total number of classroom teachers (excluding such staff members as supervisors, principals, and librarians) has grown faster than the number of pupils:

	Last fall	This fall	Percent increase
Elementary----	690,109	730,822	5.9
Secondary-----	375,694	408,100	8.6
Total--	1,065,803	1,138,922	6.9

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ADULT EDUCATION CONFERENCE

"This is the first time we've ever gathered together at one time and in one place a panoramic view of methods and materials for use in the literacy education of adults."

When he made this statement, Ambrose Caliver, Assistant to the Commissioner of Education, was speaking of the symposium held during the annual convention of the Adult Education Association of the United States, at St. Louis, Mo. November 11-14.

Dr. Caliver, who last summer was made chief of the Office of Education's newly established Adult Education Section, attended the convention in his capacity as chairman of the Association's section on fundamental and literacy education.

One of the acts of the Association at this meeting that is of particular

interest to the Office of Education was the passing of a unanimous resolution that commended the Office for establishing a section on adult education.

During the convention, Dr. Caliver reports, he conferred with a group of leaders about the long-range program of research and services that the Office of Education is planning in the field of adult education.

Members of the group were Kenneth Benne, president of AEA and

The new *Handbook of the Office of Education* is available without charge to *School Life* readers. It presents the history, organization, and functions of the Office and sets forth the legal bases for its operation. Order from Publications Inquiry Unit, Office of Education, Washington 25, D. C.

director, Institute of Human Relations, Boston University; John Biggers, assistant secretary, National Association of Public School Adult Educators (NAPSAE); Ralph E. Crow, president of NAPSAE and director of adult education, Cleveland, Ohio; John Duff, head, department of adult education, New York University; Paul Durrie, associate director, Fund for Adult Education; Herbert Hunsaker, head, adult education department, Purdue University; Homer Kempfer, director, National Home Study Council; Malcolm Knowles, executive director, AEA; Grady E. Moates, coordinator of adult and veteran education, Tallahassee, Fla.; Everett Preston, director of adult education, State of New Jersey; and Thomas A. Van Sant, director of adult education, Baltimore, Md.

Some details about

354,000 ACADEMIC DEGREES

earned in 1954-55

The total number of earned degrees conferred by institutions of higher education in the United States has decreased for the fifth consecutive year. But for the third consecutive year the decreases have grown smaller, both numerically and percentage-wise: in 1952-53 the decline from the preceding year was 29,005, or 7.2 percent; in 1953-54 it was 15,490, or 4.1 percent; and in 1954-55 it was only 4,254, or 1.2 percent.

Totals for the year

Between July 1, 1954, and June 30, 1955, a total of 354,445 earned degrees were conferred by institutions of higher education in the United States.* Bachelor's and first professional degrees made up 81.1 percent; master's and second professional, 16.4 percent; and doctor's, 2.5 percent.

Bachelor's degrees decline

Like the total, the number of degrees at the first level (bachelor's and first professional) has declined for the fifth consecutive year. Persistent though it is, the loss is not to be judged as evidence that interest in higher education is waning in the United States. Interest is growing, rather: enrollment in colleges and universities has steadily increased for 4 consecutive years and is now the largest in the Nation's history.

Too, the ratio of first-level degrees to that segment of the population which is 21 years old—of "college-graduating age"—has increased considerably since the prewar years, from 7.9 percent in 1939-40 to as much as 13.7 percent in 1954-55.

*"United States" here is used to include not only continental United States but also its outlying parts.

Explanation for the steady decline in first-level degrees since 1950—and in the total number of degrees, for that matter—is chiefly this: In 1946 the biggest wave of veteran enrollment hit the colleges and universities; and by the summer of 1950 those students had earned their degrees.

Actually, therefore, the recent reduction in degrees is but a surface phenomenon, beneath which the normal college enrollment continues its less spectacular but steady increases. Of course 1953 and 1954 brought another, though smaller, wave of veterans under the Korea G. I. Bill, but these students have not yet had time to strongly affect the degree totals.

One other factor in the decline in bachelor's degrees in 1954-55 should be mentioned here, if for no other reason than that it lies more than 20 years in our past and so is easily forgotten. The low birthrate in the

This analysis is based on data which will appear in Earned Degrees Conferred by Higher Educational Institutions, 1954-55, eighth in a series of annual reports on the subject by the Office of Education.

For this report, data have been furnished by the registrars of the 1,320 degree-granting institutions in the United States, in response to a questionnaire sent out by the Office in June.

The report is now being prepared in the Research and Statistical Services Branch, by Mabel C. Rice, supervisory survey statistician, and Neva A. Carlson, reports analyst, under the general direction of William A. Jaracz, head, Statistical Services Unit.

early 1930's, during the Great Depression, showed its effects particularly in the freshman class in the fall of 1951, the smallest we have had since the war. And it was the students in that class who earned their first-level degrees in 1954-55.

Graduate levels: increase and decrease

At the second level (master's and second professional), however, the number of degrees in 1954-55, instead of continuing the decline begun in 1951-52, increased slightly.

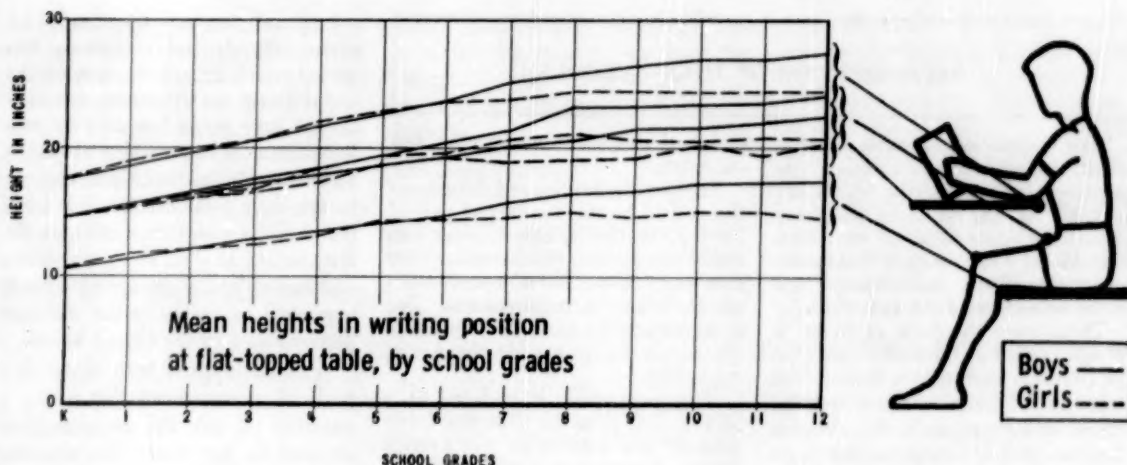
This year's rise probably reflects the increased holding power that institutions of higher learning have demonstrated over the last quarter of a century. In 1929-30, graduate degrees made up only 12 percent of the total number of earned degrees. But in 1939-40 they had risen to 14 percent; in 1951-52 to 18 percent; and in 1954-55 to nearly 19 percent.

Moreover, for each year since 1950-51 the number of second-level degrees has been increasing in proportion to the number of first-level degrees conferred the year before; i. e., the number of master's degrees in 1950-51 was 15 percent of the number of bachelor's degrees in 1949-50; in 1951-52 it was 16.5 percent of the bachelor's degrees in 1950-51; and so on.

The subsequent annual increases have brought 1954-55's second-level degrees up to 19.9 percent of the first-level degrees in 1953-54—a fact that indicates the increased disposition of students to continue their efforts into graduate study.

As for the number of doctor's degrees, they showed a decline for the

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For planners of schools:

130 BODY MEASUREMENTS OF CHILDREN

For at least two good reasons the people responsible for planning and equipping new schools these days ought to have the latest facts on the body sizes of children in the various grades.

• Reason 1: The standards we have been using are outmoded. Many of them are arbitrary and rule-of-thumb; others are based on data collected years ago.

Today's child is markedly larger than the child of 50 years ago. That fact has been well established by a number of reliable scientific studies.

Besides, most of the samples of children used in studies of growth and development conducted in the past have been of similar or identical ethnic groups, rather than of the mixed groups now attending our schools.

• Reason 2: Today's school differs from the school of the past. It has supplemented the traditional program of "reading and reciting" with an active program of "learning by doing." Therefore today's school must be designed and equipped for a greater variety of learning activities than that which prevailed in the past.

Three organizations join

In the spring of 1954 three organizations with a mutual interest in improving the physical environment of school children joined in a research study to get current and accurate information on all body measurements that would have any relationship to characteristic school activities—whether carried out in sitting, standing, bending, or reaching positions—and to get them for children in all grades.

The study was planned and supervised by W. Edgar Martin, Office of Education specialist in school furniture and equipment. The sample of pupils was measured and the data were analyzed by the staff of the Laboratory of Physical Anthropology of the University of Michigan. And assistance in the planning, the measuring, and the processing of data was provided by 30 companies, members of the National School Service Institute, an association of manufacturers and distributors of school furniture, equipment, and supplies.

Over 3,000 Children Measured

The measuring was done on 3,318

children from 7 elementary and 3 secondary schools in southern Michigan, in the area between Ann Arbor and Detroit. They represented all grades from kindergarten through grade 12 and ranged in age from 5 to 21 years. The ethnic origins of the children and the occupations of their parents were varied and representative of an industrialized and defense area which has drawn its population from many diverse regions of the United States.

In describing the sample of children, Dr. Martin said that it "is not taken to be representative of the total school population of the United States, nor to account for regional variability," but that it "is highly heterogeneous in origin and does not represent any one segment of the Nation's population."

A total of 52 different measurements were made on each pupil, beginning with such standard measurements as weight and stature and proceeding to such specific measurements as "maximum upward reach" and "height of hands in working position."

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ACCREDITATION OF HIGH SCHOOLS

State educational agencies are constantly reexamining and revising their practices for accrediting secondary schools. Of the 44 States that have formalized statements of accreditation, all but 7 have revised those statements since 1950, and 19 have done so as recently as 1953 and 1954.

Those were the facts as Grace S. Wright, Office of Education specialist in secondary education, found them when in 1954 she analyzed State accreditation practices in this country. Her analysis is now published in an 81-page report, *State Accreditation of High Schools: Practices and Standards of State Agencies*—the first major publication on this subject that the Office of Education has offered in more than 20 years.

"Statements of standards currently in force in the several States," says Mrs. Wright, "are both alike and different. They are alike in their continuance of the kind of requirements that were set up . . . in the early years . . . and in their reflection of criteria of the regional associations. They are different in the recognition they take of emerging practices and in the extent to which they are gen-

eral and subjective or specific and objective."

To these similarities and differences the author devotes the largest part of her report. One by one, she examines the 30-some standards that recur most frequently in the States' compilations of accreditation requirements. For each she specifies the number of States that apply it; in a table she names each State.

This comparison is prefaced by a section that gives the historical background and establishes the present status of secondary-school accreditation, and is followed by a section that points out the seven chief trends now discernible in such accreditation. A bibliography, together with appendices that acknowledge the various sources of information, closes the volume.

For State agencies, *State Accreditation of High Schools* provides an easy opportunity to examine their own standards and practices in the light of what other States are requiring and recommending. The report is available for 30 cents from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

BODY MEASUREMENTS

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Measurements based on measurements

On the basis of these 52 measurements, an additional 78 were computed. Among the computed ones were "hand height in carrying position," "height of stool for use at standing-height work surface," and "hand height in easy forward bend."

All in all, therefore, 130 measurements were recorded for each child, all having direct application to the planning of school buildings or the designing of school furniture and equipment.

Data were recorded by grade, age, and sex.

Two reports of data

Two reports have been written on the study, both by Dr. Martin.

The first, published by the National School Service Institute, appeared late last year under the title *Functional Body Measurements of School Age Children*. It was prepared for use by designers and manufacturers of school furniture and equipment and gave only average measurements of pupils by age and grade.

The second, *Children's Body Measurements for Planning and Equipping of Schools*, was published this fall by the Office of Education.

Prepared for use specifically by school officials and architects, this second report groups the data on the 130 different measurements not only by age and grade but also by sex. In addition, it has a series of graphs and several tables that did not appear in the first publication. The additional tables give information on the distribution of sizes of chairs, desks, and tables in the grades of schools organized according to the different patterns used in the United States.

A useful factor of both reports is a table of measurements that makes it possible to use the measurements secured in the study for planning buildings and equipment for children in a local school or community for whom the average stature is known but who differ in average size from the Detroit sample.

FALL FACTS

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Such an overall increase reduces the pupil-teacher ratio from 27.7 to 26.8. It must be emphasized, however, that the average conceals a great many local situations in which the pupil load per teacher has increased.

All but six States—New Mexico, Kansas, Maine, Minnesota, Pennsylvania, and South Dakota—showed an increase in the number of teachers employed.

Shortage of qualified teachers

The report that the number of teachers with substandard credentials has decreased—from 91,191 last year to 77,646—requires explanation.

There was a change of definition of "substandard credentials" in the reports of three States—Louisiana, Massachusetts, and Missouri. If these States are excluded from the totals for both this fall and last, a net increase of 2,700 substandard teachers appears. Of the other 45 States, 26 reported increases.

A national definition of what constitutes "substandard credentials" is not at present available. Despite the variation among States, however, the data on substandard teachers are valuable in that they point up the shortage of qualified teachers in each State according to each State's standards.

EARNED DEGREES

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first time since 1945-46. Degrees reported at this level include such degrees as Ph. D., Ed. D., S. T. D., and Sc. D., but not M. D. and D. D. S., which are counted as "first professional."

Five Favorite Fields

The degrees in 1954-55 were conferred in 68 different fields of study; but nearly half of them were concentrated in only 5 of those fields:

Field	Number of degrees	Percent of total
Education	70,408	19.9
Business and commerce (all)	45,135	12.7
Engineering	27,672	7.8
English	15,109	4.3
History	11,049	3.1

Total----- 169,373 47.8

At the first level, the same 5 fields led as in the total, with fairly similar percentages: Education,* 15.0; all business and commerce, 14.5; engineering, 7.9; English, 4.6; and history, 3.3.

At this level the first four fields have been the same for years, with some shifting among them for position; but fifth place has been alter-

*At this level most of the degrees reported under education are in elementary education. Students in secondary education usually major also in the field they plan to teach—English or mathematics, for example; and their degrees are counted under that field instead.

nately held by law, economics, and now, for the second time since the Office of Education began its separate series of reports on earned degrees, history.

Education leads at all levels

But at the second level some deviations from that order appeared. Education (44.4%) still topped the list, but engineering (7.7 percent) took the lead over all business and commerce (5.7 percent); and music and English virtually tied for fourth place (2.9 percent). These five fields have been dominant in second-level degrees for a number of years.

At the doctor's level the first five fields have been the same for 4 years' running: Education, chemistry, psychology, engineering, and physics, in that order. This year's percentages were 15.3, 11.4, 7.8, 6.8, and 5.8, respectively.

Men's share in total still declines

Men earned 65 percent of all degrees conferred in 1954-55.

At the bachelor's level their share was only slightly less—64 percent—but it was the smallest share they have had since the presence of the veteran first substantially altered the usual ratio of men to women (in prewar years it was less than 60 percent). In 1949-50 men earned 76 percent of the first-level degrees, but ever since that year the proportion has steadily declined.

At the master's level, men earned a somewhat larger proportion of the degrees (66.6 percent), more than the prewar ratio of about 60 percent but a continuation of the decline that has steadily gone on since 1950-51, when the ratio was 71 percent.

The doctor's degree is particularly in the male domain, despite the fact that the number of women earning it has increased in recent years. In 1954-55 the ratio was roughly 10 to 1.

Sexes choose different fields

Men and women show considerable difference also in the fields in which they choose to earn a degree.

At the first level, the 5 fields ranking highest for each sex had only 2 fields in common—education, and business and commerce. And even in those, differences appeared: Women earned about 83 percent of the degrees in education, and men earned about 85 percent of the ones in all business and commerce.

For the other principal fields at the first level, men chose engineering, law, and medicine. Women chose English, nursing, and home economics.

At the doctor's level, the 5 highest choices for each sex overlapped in 3 fields: Education, chemistry, and psychology. Here, however, education ranked first for both men and women, accounting for 14 percent of the degrees earned by men and 28 percent of those earned by women. For men the other fields were engineering and physics. For women the choices were English and home economics.

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*Reviewed in this issue.

STATISTICS OF LAND-GRANT COLLEGES AND UNIVERSITIES, YEAR ENDED JUNE 30, 1954, prepared by *Neva A. Carlson*. 1955. 61 p. 25 cents. (Bul. 1955, No. 8.)

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*FALL 1955 STATISTICS ON ENROLLMENT, TEACHERS, AND SCHOOLHOUSING IN FULL-TIME PUBLIC ELEMENTARY AND SECONDARY DAY SCHOOLS, by *Samuel Schloss* and *Carol Joy Hobson*. 1955. 4 p. (Stat. Cir. No. 467 preliminary.)

*HANDBOOK, OFFICE OF EDUCATION. 1955. 18 p.

HIGH SCHOOL GRADUATION REQUIREMENTS ESTABLISHED BY STATE DEPARTMENTS OF EDUCATION, by *Grace S. Wright*. 1955. 14 p. (Cir. No. 455.)

PRELIMINARY STATISTICS OF STATE SCHOOL SYSTEMS, 1953-54: PROVISIONAL DATA FOR 35 STATES AND ESTIMATES FOR CONTINENTAL UNITED STATES (FULL-TIME PUBLIC ELEMENTARY AND SECONDARY SCHOOLS), by *Samuel Schloss* and *Carol Joy Hobson*. 1955. 4 p. (Cir. No. 459.)

*SELECTED BIBLIOGRAPHY ON INDUSTRIAL TECHNOLOGICAL ADVANCES, WITH PARTICULAR EMPHASIS ON AUTOMATION, compiled by *Howard K. Hogan*. Nov. 8, 1955. 6 p. (Misc. 3494.)